LARGE COMMUNITY (POPULATION ≥ 10,000) NEEDS SURVEY FORM

Step 1: Basic Facility/Project Information
This step asks you to identify basic facility/project information for your community's facility/project including location, point of contact, type of facility/project, flow, and population. *Add additional pages, if necessary*.

Step 2: Needs Information
Identify any unfunded projects(s) (or portions thereof) and associated capital costs that address a water quality or water-quality-related public health problem existing as of January 1,2022, or expected to occur within the next 20 years. If only a portion of the project has been awarded funds, submit the portion of the needs not funded by January 1, 2022. They can include estimates for new infrastructure, sustaining current infrastructure, and/or meeting future growth needs (through December 31, 2041). Also, only include the capital needs of your project and not the annual O&M costs.

Submit a copy of the documentation describing your community's new needs and costs, such as: (See Appendix 3 for a complete list of acceptable documents to justify needs and costs):

- Application for funding (e.g. USDA Rural Development, US EPA, and State grants and loans; Clean Water State Revolving Fund loans)
- Capital Improvement Plan (CIP) or Facilities Plan
- Preliminary engineering study or Plan of Study
- General Plan or Asset Management Plan or Municipal Waste-load Allocation Plan
- Preliminary or Final Engineer's Estimate
- Sewer System Evaluation Documents
- Administrative Orders, Court Orders, or Consent Decrees
- National Pollutant Discharge Elimination System (NPDES) permit or State Permit (with Schedule)
- CSO Long-Term Control Plan (LTCP)
- Municipal Storm Water Management Plan
- Watershed-Based Plan or NPS Assessment Report or Source Water Protection Plan

Step 2a: Alternative:
If you do not have sufficient documentation that includes cost estimates, you may provide inputs for New York State to use EPA's cost estimation tools. Proceed to Step 2a to fill out the required inputs and include the documents or link to data sources supporting these inputs with your submission.

Step 3: Signatures
If you are using this survey form to justify needs of your facility/project with additional documentation to justify costs (see Appendix 3 for a list of pre-approved documents), the signature box must be completed as indicated.

Step 4: Unit Process Information (OPTIONAL)
Complete this section if your facility type is Wastewater Treatment Plant. Unit process information is optional for wastewater facilities however, if you would like to update your facility information, you can still fill-out this section. Please list the unit processes in the order they are utilized in your facilities treatment stream in Step 4 of this survey form. (See Attachment 4 for a list of unit processes accepted in the CWNS database.)

Return the completed form and associated documents via EFC's online submission form no later than *September 2, 2022.*

If you have any questions, please contact EFC at nyscwns@efc.ny.gov. Thank you for your participation.

Step 1: Basic Facility/ Project Information

Facility/ Project Name:					
The facility is part of the following system: (If this is a wastewater collection/treatment facility)					
Organization responsible for facility/project:					
Facility Address:					
City:		State:	NY	Zip Code:	
County:					
Permit Number(s):					
Point of Contact:		Role/ Title:			
Phone:	( ) -	Fax:	( ) -		
Email:					

Facility/Project Type: Choose the appropriate descriptors from the list (Appendix 1) to complete the columns "Type" and "Planned Changes." Indicate whether the facility/project is "Present" or "Projected" by placing a check mark in the appropriate column(s).

Type	Present	Projected	Planned Changes
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	

Does this facility discharge to another facility (ies)? Yes ☐ No ☐
If yes, name facility(ies): _____

Flow Information: Complete for following table for facility/project types: Treatment Plant, Treatment Lagoon or Pond, Collection: Combined Sewers, Collection: Separate Sewers, Collection: Interceptor Sewers, Collection: Pump Stations, Storage Facility, Bio-solids Handling Facility, Individual On-Site System Area, Decentralized, and Treatment System. Data is only required in the "Total Flow" row.

Flow Type	Millions of Gallons per Day (MGD)		
	Existing	Present Design	Future Design
Municipal Flow (optional)			
Industrial Flow (optional)			
Infiltration from Groundwater (optional)			
Total Flow (required)			
Wet Weather Flow (Peak) (optional)			

Population Receiving Treatment:
Complete for following table for facility/project types: Treatment Plant, Treatment Lagoon or Pond, Collection: Combined Sewers, Collection: Separate Sewers, Collection: Interceptor Sewers, Collection: Pump Stations, Storage Facility, Biosolids Handling Facility, Individual On-Site System Area, Decentralized, and Treatment System.

	Resident Population			**Non- Resident Population***		
	Present	Projected	Projected Year	Present	Projected	Projected Year
From this system						
From upstream collection system(s)**						
Total Receiving Collection						
Cluster Systems (If applicable)						
Onsite Wastewater Treatment Systems (If applicable)						
TOTAL						

* The portion of the population that does not live within the services area of the facility, but still utilizes the facility's infrastructure. Non-resident population includes transient, seasonal, and commuter workers and tourists.
** "From upstream collection systems" describes the total population whose wastewater is discharged to this facility from other facilities upstream in the sewershed.

Step 2: Needs Information
Enter the capital costs for unfunded project(s) that address a water quality or water-quality-related public health problem existing as of January 1, 2022, or expected to occur within the next 20 years.

To complete:

- NEEDS: Capital costs are reported by their needs category. Each needs category is listed in the table below (also see Appendix 2). Definitions for each needs category are available at www.epa.gov/cwns. For Stormwater Needs and Decentralized Water Treatment Systems, please use the specific forms found on EFC's website.
- REASON: Mark the reason (public health problem [PH], water quality problem [WQ], or both).
- COSTS: In order to include the needs of your project(s) in the CWNS, provide cost information for each need. Indicate the source (document name) and the base month and year of the cost information. Attach a copy of the source document. See Appendix 3 for a list of pre-approved documentation. If you don't see your document in the list but it contains costs, please provide the document and the NYS Coordinator will submit it to EPA for approval. If no cost information is available, indicate NA in cost column.
- Add additional pages, if necessary.

NEEDS	REASON	COSTS
Secondary Wastewater Treatment	PH ☐ WQ ☐	
Advanced Wastewater Treatment	PH ☐ WQ ☐	
Infiltration/Inflow Correction	PH ☐ WQ ☐	
Sewer Replacement/ Rehabilitation	PH ☐ WQ ☐	
New Collector Sewers and Appurtenances	PH ☐ WQ ☐	
New Interceptor Sewers and Appurtenances	PH ☐ WQ ☐	
Combined Sewer Overflow (CSO) Corrections	PH ☐ WQ ☐	
NPS Control: Agriculture (Cropland)	PH ☐ WQ ☐	
NPS Control: Silviculture	PH ☐ WQ ☐	

NEEDS	REASON	COSTS
NPS Control: Groundwater Protection (Unknown Source)	PH ☐ WQ ☐	
NPS Control: Marinas	PH ☐ WQ ☐	
NPS Control: Resource Extraction	PH ☐ WQ ☐	
NPS Control: Brownfields / Superfund	PH ☐ WQ ☐	
NPS Control: Storage Tanks	PH ☐ WQ ☐	
NPS Control: Sanitary Landfills	PH ☐ WQ ☐	
NPS Control: Hydromodification	PH ☐ WQ ☐	
NPS Control: Other Estuary Management Activities	PH ☐ WQ ☐	
Water Reuse	PH ☐ WQ ☐	
Decentralized Wastewater Treatment Systems	PH ☐ WQ ☐	
Desalination	PH ☐ WQ ☐	

Step 2a: Alternative

If you do not have sufficient documentation that includes cost estimates, you may provide inputs for New York State to use EPA's cost estimation tools. In the box below, enter the required inputs and include the documents (as an attachment) or link to data sources supporting these inputs with your submission. For example, if you need 2,000 feet of new pipe, provide the source for that number/estimate. See Appendix 5 for additional information on CETs and acceptable inputs. Attach additional sheets, if necessary.

Required Inputs	Links to Documents or Name of Attached Documents

Step 3: Signatures

If you are using this survey form to justify needs of your facility/project with additional documentation to justify costs (see Appendix 3 for a list of pre-approved documents), the signature box below **must be completed as indicated.**

SIGNATURE BOX	
NEEDS CERTIFICATION	
As the local official representing this community or authority, I agree that the water quality needs and technical information described herein is accurate for this community. Note: A local official can be an elected official (e.g., mayor) or other qualified official (e.g., public works manager or executive director).	
Name:	
Title:	
Signature:	Date:

Step 4: Unit Process Information (OPTIONAL)

The Unit process data is OPTIONAL and not required in CWNS 2022. However, if you would like to update this information for your facility, please identify the unit processes in the order they are utilized in your wastewater facility. See Appendix 4 for a list of unit processes accepted in the CWNS database.

NYSPDES Number: _____

Treatment Type		Present		Projected			
Treat. Level	Unit Processes	Present Use	Backup Process	Proj. Use	Backup Process	Change (See list below for Change Types)	Projected Year
Preliminary		☐	☐	☐	☐		
		☐	☐	☐	☐		
		☐	☐	☐	☐		
		☐	☐	☐	☐		
		☐	☐	☐	☐		
		☐	☐	☐	☐		
Primary		☐	☐	☐	☐		
		☐	☐	☐	☐		
		☐	☐	☐	☐		
		☐	☐	☐	☐		
		☐	☐	☐	☐		
		☐	☐	☐	☐		
		☐	☐	☐	☐		
		☐	☐	☐	☐		
Secondary		☐	☐	☐	☐		
		☐	☐	☐	☐		
		☐	☐	☐	☐		

		☐	☐	☐	☐		
		☐	☐	☐	☐		
		☐	☐	☐	☐		
		☐	☐	☐	☐		
		☐	☐	☐	☐		
Advanced		☐	☐	☐	☐		
		☐	☐	☐	☐		
		☐	☐	☐	☐		
		☐	☐	☐	☐		
		☐	☐	☐	☐		
		☐	☐	☐	☐		
Disinfection		☐	☐	☐	☐		
		☐	☐	☐	☐		
		☐	☐	☐	☐		
		☐	☐	☐	☐		
		☐	☐	☐	☐		
Solids Handling		☐	☐	☐	☐		
		☐	☐	☐	☐		
		☐	☐	☐	☐		
		☐	☐	☐	☐		

Changes

1. No Change
2. Abandonment
3. New
9. Expansion
10. Process Improvement
11. Instrumentation/Electrical/Laboratory

4. Increase Capacity
5. Increase Level of Treatment
6. Rehabilitation
7. Replacement
8. Redevelopment
12. Improve energy efficiency
13. Climate change adaptation
14. Renewable energy
15. Improve water efficiency

Appendix 1: Facility/Project Types Information

Use for updating the table "Facility/Project Type" in Step 1.

Facility Type	Definition
Treatment plant	A combination of unit processes designed to receive and treat wastewater and then discharge the treated wastewater (effluent) into the environment. This type includes both mechanical plants and lagoons or ponds (other than honey bucket lagoons). It also includes unit processes intended to remove pollutants from CSOs prior to the discharge of the overflow to the environment. It can also include package plants, although it is up to the state if these are reported as treatment plants (wastewater) or clustered systems (decentralized). This type does not include unit processes intended to thicken, stabilize, dewater, or store biosolids; they should be designated as biosolids handling facilities.
Collection: combined sewers	Infrastructure designed to collect and transport a combination of wastewater and stormwater. This type does not include sewers that were designed to carry only wastewater and infiltration/inflow, which should be designated as collection: separate sewers.
Collection: separate sewers	Infrastructure designed to collect and transport wastewater. Although this type includes sewer systems that collect and transport infiltration and inflow, it does not include sewers designed to carry both stormwater and wastewater; they should be designated as collection: combined sewers.
Collection: interceptor sewers	Large sewer lines that collect the flows from smaller main and trunk sewers and carry them to the treatment plant.
Collection: pump stations	Mechanical devices designed to move waste and other fluid from underground pipelines and storage areas to higher elevations to reach the treatment plant.
Honey bucket lagoon	A shallow artificial lagoon where human waste from homes is transported to for disposal.
Storage facility	A facility that temporarily holds wastewater until it is transported and treated elsewhere.
Biosolids handling facility	A combination of unit processes designed to thicken, stabilize, dewater, or store biosolids prior to disposal.
Water reuse	The combination of unit processes used to convey treated wastewater that will be reused.
OWTS	A combination of natural and mechanical processes designed to collect, treat, and disperse or reclaim wastewater from a single dwelling or building. Septic tanks and drainfields or holding tanks are examples.
Clustered system	A combination of unit processes under some form of common ownership designed to collect wastewater from two or more dwellings or buildings and convey it to a treatment and dispersal system on a suitable site near the dwellings or buildings. Clustered systems include multifamily septic systems as well as package treatment plants.
Phase I MS4	A combination of unit processes or BMPs designed to collect, treat, and transport stormwater for entities regulated under the NPDES Phase I permit process. Phase I permits are required for medium (population 100,000–249,999) and large (population 250,000 or more) MS4s in incorporated places or counties with populations of 100,000 or more. Capital projects to address primarily water-quality-related needs are allowable for CWNS 2022. Projects with integrated water quality and water quantity benefits are also permitted if the primary purpose is water quality. Only processes or practices that address water quality or public health problems are included in the CWNS.

Facility Type	Definition
Phase II MS4	A combination of unit processes or BMPs designed to collect, treat, and transport stormwater for entities regulated under the NPDES Phase II permit process. Phase II permits were required for small MS4s (population 99,999 or less) located in "urbanized areas" as defined by the Bureau of the Census, as well as small MS4s outside urbanized areas that are designated by NPDES permitting authorities. Capital projects to address primarily water-quality-related needs are allowable for CWNS 2022. Projects with integrated water quality and water quantity benefits are also permitted if the primary purpose is water quality. Only processes or practices that address water quality or public health problems are included in the CWNS.
Non-traditional MS4	A combination of unit processes or BMPs designed to collect, treat, and transport stormwater for regulated MS4s owned by non-municipal, public entities (e.g., universities, Departments of Transportation, prisons, school districts). Capital projects to address primarily water-quality-related needs are allowable for CWNS 2022. Projects with integrated water quality and water quantity benefits are also permitted if the primary purpose is water quality. Only processes or practices that address water quality or public health problems are included in the CWNS.
Unregulated community stormwater	In areas not regulated by NPDES permits, a combination of unit processes or BMPs designed to address stormwater pollution control needs associated with new or existing development in urban or rural settings, such as erosion, sedimentation, and discharge of pollutants (e.g., inadequately treated wastewater, oil, grease, road salts and toxic chemicals) into water resources from construction sites, roads, bridges, parking lots, and buildings.
Agriculture—cropland	A combination of BMPs designed to address water quality or public health problems caused by agricultural activities such as plowing, pesticide spraying, irrigation, fertilizing, planting, and harvesting. The primary agricultural NPS pollutants are nutrients, sediment, animal wastes, salts, and pesticides. Agricultural activities also have the potential to directly affect the habitat of aquatic species through physical disturbances of adjacent land caused by equipment or water management activities (e.g., dams, irrigation).
Agriculture—animals	A combination of BMPs designed to address water quality or public health problems caused by agricultural activities related to grazing and animal production such as animal feeding operations that are not subject to the concentrated animal feeding operation regulations. Animal waste includes the fecal and urinary wastes of livestock and poultry; process water (such as that from a milking parlor); and the feed, bedding, litter, and soil with which they become intermixed. Pollutants such as organic solids, salts, bacteria, viruses, and other microorganisms, and sediments might be contained in animal waste transported by runoff water and process wastewater.
Silviculture	A combination of BMPs designed to address water quality or public health problems caused by forestry activities such as removal of streamside vegetation, road construction and use, timber harvesting, and site preparation for the planting of trees. Silvicultural activities can cause degradation of water quality and habitat quality if care is not taken to prevent adverse effects. Sediment from erosion due to tree harvesting activities and access road construction, temperature increases due to riparian shade removal, and pesticides and fertilizer used during timber operations are some of the major pollutants from timber harvesting sites. Silviculture BMPs include measures that control erosion from access roads, maintain the stability of stream banks, ensure the revegetation of harvested areas, and control the introduction of pesticides and fertilizers into waterways.

Facility Type	Definition
Marinas	A combination of BMPs designed to address water quality or public health problems associated with boating and marinas, such as poorly flushed waterways; boat maintenance activities; discharge of sewage from boats; stormwater runoff from marina parking lots; and the physical alteration of shoreline, wetlands, and aquatic habitat during the construction and operation of marinas.
Resource extraction	A combination of BMPs designed to address water quality or public health problems caused by mining, quarrying, hydraulic fracking, and oil/gas operations. Eligible water quality projects that remediate or prevent contamination from these sites, whether active or abandoned, include projects to treat drainage (e.g., acid mine drainage) and wastewater (e.g., fracking wastewater), prevent aquifer contamination, excavate, and remediate contaminated soil at the site, remove contamination from water or soil that is not part of the site (e.g., removal of mine tailings from stream beds), or prevent runoff.
Brownfields/Superfund	A combination of BMPs designed to address water quality or public health problems at abandoned, idle, or underused industrial and commercial sites. Brownfields or Superfund sites can be in urban, suburban, or rural areas.
Storage tanks	A combination of BMPs designed to address water quality or public health problems caused by tanks designed to hold gasoline or other petroleum products or chemicals. The tanks may be above or below ground level.
Sanitary landfills	A combination of BMPs designed to address water quality or public health problems at sanitary landfills. Sanitary landfills are landfills designed as disposal sites for nonhazardous solid wastes rather than hazardous solid waste or biosolids.
Groundwater—unknown source	A combination of BMPs designed to address groundwater protection needs from an unknown or otherwise undefined source. Any need that can be attributed to a specific cause of groundwater pollution should be indicated with a more specific type, such as storage tanks, brownfields, or sanitary landfills.
Hydromodification	A combination of BMPs designed to address water quality or public health problems associated with channelization and channel modification, dams, and stream bank and shoreline erosion.
Estuary management	A combination of BMPs designed to protect the estuarine ecosystem. Examples include habitat for aquatic species, fisheries, oyster bed, and shellfish restocking and restoration; fish ladders; rejuvenation of submerged aquatic vegetation; artificial reef establishment; control of invasive vegetative and aquatic species; and water control structures for flow regime and salinity.
Desalination	A facility to separate dissolved salts and other minerals from water for a water quality benefit.

Change Types

1. No Change
2. Abandonment
3. New
4. Increase Capacity
5. Increase Level of Treatment
6. Rehabilitation
7. Replacement
8. Redevelopment
9. Expansion
10. Process Improvement
11. Instrumentation/Electrical/Laboratory
12. Improve energy efficiency
13. Climate change adaptation
14. Renewable energy
15. Improve water efficiency

Appendix 2 List of Needs Categories in CWNS 2022

2022 Category Number	Category Name	Description
I	Secondary Wastewater Treatment	This category includes needs necessary to meet secondary treatment criteria. Secondary treatment typically requires a treatment level that produces an effluent quality of 30 mg/L of both BOD_5 and total suspended solids (secondary treatment levels required for some lagoon systems may be less stringent). In addition, the secondary treatment must remove 85 percent of BOD_5 and total suspended solids from the influent wastewater. Although they do not provide secondary treatment, facilities granted waivers of secondary treatment for marine discharges under Section 301(h) of the CWA and "honey bucket lagoons" are also included in this category.
II	Advanced Wastewater Treatment	This category includes needs necessary to attain or maintain a level of treatment that is more stringent than secondary treatment or produce a significant reduction in nonconventional or toxic pollutants present in the wastewater treated by a facility. A facility is considered to have advanced wastewater treatment if it achieves one or more of the following: BOD_5 less than 20 mg/L, nitrogen removal, phosphorus removal, ammonia removal, metal removal, or synthetic organic removal.
III-A	Infiltration/Inflow (I/I) Correction	This category includes needs for correction of sewer system I/I problems. For infiltration, this includes controlling the penetration of water into a sanitary or combined sewer system from the ground through defective pipes or manholes. For inflow, it includes controlling the penetration of water into the system from drains, storm sewers, and other improper entries. It also includes costs for preliminary sewer system analysis and detailed SSESs.
III-B	Sewer Replacement/ Rehabilitation	This category includes needs for the maintenance (above and beyond ongoing O&M), reinforcement, or reconstruction of structurally deteriorating sanitary or combined sewers. The corrective actions must be necessary to maintain the structural integrity of the system.
IV-A	New Collector Sewers and Appurtenances	This category includes needs for new pipes used to collect and carry wastewater from a sanitary or industrial wastewater source to an interceptor sewer that will convey the wastewater to a treatment facility.
IV-B	New Interceptor Sewers and Appurtenances	This category includes needs for constructing new interceptor sewers and pumping stations to convey wastewater from collection sewer systems to a treatment facility or to another interceptor sewer. Needs for relief sewers are included in this category.
V	Combined Sewer Overflow (CSO) Correction	This category includes needs to prevent or control the periodic discharges of mixed stormwater and untreated wastewater (CSOs) that occur when the capacity of a sewer system is exceeded during a wet weather event. This category does not include needs for overflow control allocated to flood control, drainage improvement, or the treatment or control of stormwater in separate storm systems.

2022 Category Number	Category Name	Description
VI-A	Gray Infrastructure	This category includes needs for stormwater management program activities associated with the planning, design, and construction of conveying stormwater via pipes, inlets, roadside ditches, and other similar mechanisms. This category also includes needs associated with the planning, design, and construction of treating stormwater with wet ponds, dry ponds, manufactured devices, and other similar means.
VI-B	Green Infrastructure	This category includes needs for stormwater management program activities associated with the planning, design, and construction of low impact development and green infrastructure, such as bioretention, constructed wetlands, permeable pavement, rain gardens, green roofs, cisterns, rain barrels, vegetated swales, restoration of riparian buffers and flood plains, etc. Projects in this category can be either publicly or privately owned.
VI-C	General Stormwater Management	This category includes needs for stormwater management program activities associated with implementing a stormwater management program, such as geographic information systems (GIS) and tracking systems, equipment (e.g., street sweepers, vacuum trucks), stormwater education program startup costs (e.g., setting up a stormwater public education center, building a traveling stormwater education display), and stormwater management plan development.
VII-A	NPS Control: Agriculture (Cropland)	This category includes costs to address NPS pollution control needs associated with agricultural activities related to croplands, such as plowing, pesticide spraying, irrigation, fertilizing, planting, and harvesting. Some examples of BMPs used to address these needs are conservation tillage, nutrient management, and irrigation water management.
VII-B	NPS Control: Agriculture (Animals)	This category includes all costs that address NPS pollution control needs associated with agricultural activities related to animal production, such as confined animal facilities and grazing. Some typical BMPs used to address agriculture (animal) needs are animal waste storage facilities, animal waste nutrient management, composting facilities, and planned grazing. Any costs associated with facilities or measures that address point source pollution discharges are not reported in this category.
VII-C	NPS Control: Silviculture	This category includes all costs that address NPS pollution control needs associated with forestry activities, such as removal of streamside vegetation, road construction and use, timber harvesting, and mechanical preparation for the planting of trees. Some typical BMPs used to address silviculture needs are pre-harvest planning, streamside buffers, road management, revegetation of disturbed areas and structural practices, and equipment (e.g., sediment control structures, timber harvesting equipment).
VII-E	NPS Control: Groundwater Protection (Unknown Source)	This category includes all costs that address groundwater protection NPS pollution control needs, such as wellhead and recharge area protection activities. Any need that can be attributed to a specific cause of groundwater pollution, such as leaking storage tanks, soil contamination in a brownfield, or leachate from a sanitary landfill, is reported in that more specific category.

2022 Category Number	Category Name	Description
VII-F	NPS Control: Marinas	This category includes all costs that address NPS pollution control needs associated with boating and marinas, such as poorly flushed waterways, boat maintenance activities, discharge of sewage from boats, and the physical alteration of shoreline, wetlands, and aquatic habitat during the construction and operation of marinas. Some typical BMPs used to address needs at marinas are bulk heading, pump-out systems, and oil containment booms.
VII-G	NPS Control: Resource Extraction	This category includes all costs that address NPS pollution control needs associated with mining and quarrying activities. Some typical BMPs used to address resource extraction needs are detention berms, adit (mine entrance) closures, and seeding or revegetation. Any costs associated with facilities or measures that address point source discharges are not reported in this category.
VII-H	NPS Control: Brownfields/Superfund	This category includes all costs that address NPS pollution control needs associated with abandoned industrial sites that might have residual contamination (brownfields) and hazardous waste sites covered under the Comprehensive Environmental Response, Compensation, and Liability Act (Superfund sites). All costs for work at brownfield or Superfund sites, regardless of the activity, should be included in this category. Some typical BMPs used to address needs at brownfield or Superfund sites are excavation, removal, and disposal of contaminated sediment/soil; cleanup of contaminated groundwater or surface water; and capping of wells to prevent stormwater infiltration.
VII-I	NPS Control: Storage Tanks	This category includes all costs that address NPS pollution control needs associated with tanks designed to hold gasoline, other petroleum products, or chemicals. The tanks may be above or below ground level. Some typical BMPs used to address storage tank needs are spill containment systems; in situ treatment of contaminated soils and groundwater; and upgrade, rehabilitation, or removal of petroleum/chemical storage tanks. If these facilities or measures are part of addressing NPS needs at brownfields, the costs go in Category VII-H, "NPS Control: Brownfields/Superfund."
VII-J	NPS Control: Sanitary Landfills	This category includes all costs that address NPS pollution control needs associated with sanitary landfills. Some typical BMPs used to address needs at landfills are leachate collection, onsite treatment, gas collection and control, capping, and closure.
VII-K	NPS Control: Hydromodification	This category includes needs to address the degradation of water resources as a result of altering the hydrological characteristics of coastal and non-coastal waters. For a stream channel, hydromodification is the process of the stream bank being eroded by flowing water, typically resulting in the suspension of sediments in the watercourse. Examples of such hydromodification activities include channelization and channel modification, dams, and stream bank and shoreline erosion. Some typical BMPs used to address hydromodification needs are conservation easements, swales, filter strips, shore erosion control, wetland development or restoration, and bank or channel (grade) stabilization. Any work involving wetland or riparian area protection or restoration is included under this category.

2022 Category Number	Category Name	Description
VII-M	NPS Control: Other Estuary Management Activities	This category is only used for management activities in the study areas of the 28 NEPs designated under Section 320 of the CWA. It includes costs associated with a limited number of estuary management activities that may not be appropriately included in other need categories. Some typical estuary BMPs are habitat protection for aquatic species; fisheries, oyster bed, and shellfish restocking and restoration; fish ladders; rejuvenation of submerged aquatic vegetation; artificial reef establishment; control of invasive vegetative and aquatic species; and water control structures for flow regime and salinity. Point source technologies included in the NEP's Comprehensive Conservation and Management Plans should not be included in this category.
X	Water Reuse	This category includes needs associated with conveyance of treated wastewater that is being reused, including associated rehabilitation/replacement needs. Examples are pipes to convey treated water from the wastewater facility to the drinking water distribution system or the drinking water treatment facility and equipment for application of effluent on publicly owned land. The needs associated with additional unit processes to increase the level of treatment to potable or less than potable but greater than that normally associated with surface discharge needs are reported in Category II.
XII	Decentralized Wastewater Treatment Systems	This category includes needs associated with the rehabilitation, replacement, or new installation of OWTSs or clustered (community) systems. It also includes the treatment portion of other decentralized sewage disposal technologies. Costs related to the development and implementation of onsite management districts are included (but not the costs of ongoing operations of such districts). Costs could also include the limited collection systems associated with the decentralized system. Public ownership is not required for decentralized systems. This category does not include the needs to change a service area from decentralized wastewater treatment to a publicly owned centralized treatment system. Needs to construct a publicly owned centralized collection and treatment system should be reported in Category I, "Secondary Wastewater Treatment," and/or Category II, "Advanced Wastewater Treatment." Needs to install sewers to connect the service area to an existing collection system are reported in Category IV-A, "New Collector Sewers and Appurtenances," and Category IV-B, "New Interceptor Sewers and Appurtenances."
XIV	Desalination	This category includes needs for treatment and disposal of brine, desalination of brackish water to augment water supply, aquifer recharge using desalinated sea water, and treatment/reinjection of brackish groundwater.

Appendix 3: List of Acceptable Documents for CWNS 2022

List of Designated Documents

Document Type	Designation
CWSRF IUP/Project Priority List	Primary[1]
Non-CWSRF Governmental Loan and Grant Applications	Primary
CWSRF Loan Pre-applications/Final Applications	Primary
Non-governmental Grant Applications	Alternate[2]
Cost of Previous Comparable Construction	Alternate
State-Approved Area-Wide or Regional Basin Plan	Alternate
State Approved Local Comprehensive Water and Sewer Plan	Alternate
Total Maximum Daily Load (TMDL)	Alternate
NEP Comprehensive Conservation and Management Plan	Alternate
Completed State Needs Surveys and other state forms (approved as primary)	Primary
Completed State Needs Surveys and other state forms (approved as alternate)	Alternate
Wastewater/Stormwater User Rate Studies	Alternate
Climate Resilience Evaluation and Awareness Tool Reports	Alternate
Regional Water Plans	Alternate
Hazard Mitigation Plans	Alternate
Integrated Stormwater and Wastewater Plan	Alternate
CIP or Master Plan	Primary
Facility Plan or Preliminary Engineering Report	Primary
Engineer's Study	Alternate
Final Engineer's Estimate/Lowest Bids	Primary
Sewer System Evaluation Documents	Alternate
Diagnostic Evaluation	Alternate
Sanitary Survey	Alternate
State-Approved Municipal Wasteload Allocation Plan	Alternate
Recently Promulgated Municipal, State, or Federal Regulation	Alternate
Administrative Orders, Court Orders, or Consent Decrees	Alternate
NPDES or State Permit Requirement (with Schedule)	Alternate
Draft CSO Long-Term Control Plan (LTCP)	Alternate
Approved CSO LTCP/Annual Report	Primary
Signed Draft LTCP from CSO LTCP-EZ Template	Alternate
State-Approved LTCP from CSO LTCP-EZ Template	Primary
Watershed-Based Plans	Alternate

[1] Primary documents: likely to contain information satisfying all three need documentation guidelines (the project that solves the problem, the cost for each project, and the source of the cost).
[2] Alternate documents: might not include all project and cost documentation guidelines. Alternate documents commonly have information to document the project only and can be used in conjunction with other documents that include costs.

Document Type	Designation
Section 319 Funded or EPA Reviewed Watershed-Based Plans	Primary
Approved State Annual 319 Workplans	Alternate
Approved State 319 Project Implementation Plans	Primary
NPS Management Program/Assessment Report	Alternate
NPS Management Program/Groundwater Protection Strategy Report	Alternate
NPS Management Program/Wellhead Protection Program and Plan	Alternate
NPS Management Program/Delegated Underground Injection Control Program Plan	Alternate
Source Water Assessment/Source Water Protection Plan	Alternate
Natural Resources Conservation Service (NRCS) Conservation Plans and Farm Plans	Alternate
Electronic Field Office Technical Guide (eFOTG)	Alternate
State/Federal Agricultural Cost-Share Program Cost Tables	Alternate
Professional Appraisals	Alternate
Census of Agriculture	Alternate
Conservation Effects Assessment Project National Assessment for Cropland Report (CEAP-Cropland)	Alternate
U.S. Forest Service Forest Inventory and Analysis Database	Alternate
National Association of State Foresters BMP Survey	Alternate
Municipal Storm Water Management Plan	Alternate
Stormwater Utility Feasibility Study	Alternate
Small Community Form	Primary
Information from an Assistance Provider	Alternate
Asset Management Plan	Alternate

Appendix 4: Unit Processes

List of Wastewater Unit Processes

Treatment Stage	Unit Process
Preliminary treatment	Screening
	Flow Equalization
Primary treatment	Flotation
	Primary Clarification or Sedimentation
Secondary treatment	Attached Growth, Aerobic
	Attached Growth, Anaerobic
	Biological Treatment, Other
	Lagoon, Aerobic
	Lagoon, Anaerobic
	Lagoon, Facultative
	Suspended Growth, Aerobic
	Suspended Growth, Anaerobic
	Sludge Blanket, Anaerobic
Advanced treatment	Chemical Addition, Alum
	Chemical Addition, Ferric Chloride
	Chemical Addition, Polymer
	Chemical N Removal
	Chemical P Removal
	Constructed Wetland
	Filtration, Granular-Medium
	Filtration, Other
	Flocculation
	Membrane Process
	Sorption
	Stripping, Not Specified
Disinfection	Dechlorination
	Disinfection, Chemical
	Disinfection, Thermal
	Disinfection, UV
Solids handling	Biosolids Aerobic Digestion
	Biosolids Anaerobic Digestion with Energy Recovery
	Biosolids Anaerobic Digestion without Energy Recovery
	Biosolids Chemical Addition
	Biosolids Drying
	Biosolids Incineration

Treatment Stage	Unit Process
	Biosolids Mechanical Dewatering
	Biosolids Thickening

Appendix 5: CETs – Acceptable Inputs

Tool	Input
Wastewater Treatment	• ZIP Code • Practice Type (select one): lagoon, aerated lagoon, secondary mechanical, disinfection only • Construction Type (select one): new, replace, rehabilitation, treatment upgrade, expansion, add disinfection • Future Design Flow (MGD)
Wastewater Conveyance/ Collection	• ZIP Code • Construction Type (select one): new, replace, rehabilitation • Pipe: total project length (ft) • Pump station capacity – *if applicable* (MGD)
CSO Storage	• ZIP Code • Construction Type (select one): new or redevelopment • Total storage volume (MG) • Quantity (*can model multiple of the same unit*)
Stormwater	• ZIP Code • Practice Type: (permeable pavement, green roof, bioretention, buffer strip, infiltration trench, vegetated swale, constructed wetland, wet pond, dry pond, or underground detention/ retention) • Construction Type: new or redevelopment • Area (ft^2), Volume (ft^3), **or** drainage area (acres) • Quantity (*can model multiple of the same unit*)
Decentralized	• ZIP Code • Construction Type (select one): new, replace, rehabilitation • Population total and population per household **or** number of dwelling units
NPS: Agriculture-Cropland	• Location: (list counties or indicate if area of need applies to whole state) • Total State cropland area (acres) • Total area of need – if known (if not, EPA will estimate based on NRCS and USDA data) (acres)
NPS: Silviculture	• Area of forest land treated by cutting and requiring BMPs for water quality protection (acres) • BMP implementation rate (%)

CET Input Limits

Wastewater Treatment CETs by Practice Type and Change Type

Inputs in MGD,[a] Maximum Acceptable Inputs Listed					
Practice Type	**Construction Type**				
	New or Replace	**Rehabilitation**	**Treatment Upgrade**	**Expansion**	**Add Disinfection**
Lagoon	5	2	2	2	30
Aerated lagoon	5	2	2	2	
Secondary mechanical	5	8	3	3	
Advanced	5	11	12	12	

[a]Million gallons per day

Wastewater Conveyance CETs by Conveyance Category

Inputs in ft or MGD,[a] Maximum Acceptable Inputs Listed			
Conveyance Category	**Construction Type**	**Total Project Length (ft)[b]**	**Pump Station (MGD)[a]**
III-A: I/I Correction	Rehabilitation	195,000	n/a
III-B: Sewer Replacement/Rehabilitation	Replace/ Rehabilitation	195,000	n/a
IV-A: New Collector System	New	450,000	10
IV-B: New Interceptor System	New	450,000	10

[a]Million gallons per day; [b]Feet

CSO Storage CET[a]

Inputs in MG,[2] Maximum Acceptable Inputs Listed		
Practice Type	**Construction Type**	**Total Storage Volume (MG)[b]**
Combined Sewage Storage Facility	New/Replace	38

Stormwater CETs by Practice Type

Inputs Can Be Either Area, Volume, or Acreage Maximum Acceptable Inputs Listed					
Practice Type	**Construction Type**	**Practice Area (ft^2)[a]**	**Practice Volume (ft^3) [b]**	**Drainage Area (Acres)**	**Quantity**
Permeable pavement	New Development/ Redevelopment	10,000	10,000	NA	Unlimited
Green roof		43,560	10,000	NA	Unlimited
Bioretention		15,000	26,000	5	Unlimited
Buffer strip		440,000	260,000	NA	Unlimited
Infiltration trench		11,000	26,000	5	Unlimited
Vegetated swale		29,000	26,000	5	Unlimited
Constructed wetland		100,000	140,000	50	Unlimited
Wet pond		50,000	250,000	50	Unlimited
Dry pond		50,000	250,000	50	Unlimited
Underground detention or retention		n/a	250,000	50	Unlimited

[a]Square feet; [b]Cubic feet;

NPS Control CETs

No Size Criteria or Limitations		
Practice	**Acres of Need Limitation**	**Notes**
Agriculture	< state total harvested acres	EPA to provide CET and Acres Estimation Tool to estimate acres of need
Silviculture	< state total harvested acres	EPA to provide CET and guidance on how to estimate acres of need

Decentralized Treatment CETs

Parameters Are Population or Dwelling Unit—No Model Range Limits			
Practice	**New**	**Rehabilitate/Repair/Replace**	**Notes**
Onsite and clustered	$ per dwelling unit	$ per dwelling unit	Costs adjusted to location based on construction cost index